CLAIM LISTING

Claim 1. (Previously Presented) A sintered scaffold material comprising bioactive glass fibers sintered together to form the scaffold material, wherein the scaffold material has a porosity of between about 50 volume % and about 90 volume %, and wherein the scaffold material has a pore size sufficient to allow ingrowth of tissue.

Claim 2. (Cancelled)

Claim 3. (Previously Presented) The scaffold of claim 1, wherein the glass fibers are sintered together at a temperature from between about 300 °C to about 1500 °C.

Claim 4. (Previously Presented) The scaffold of claim 1, wherein the glass fibers are sintered together at a temperature from between about 600 °C to about 700 °C.

Claim 5. (Previously Presented) The scaffold of claim 1, wherein the glass fibers are sintered together at a temperature from between about 630 °C to about 680 °C.

Claim 6. (Previously Presented) A sintered glass scaffold comprising glass fibers sintered together to form the scaffold, wherein the fibers have a coating of one or more biocompatible polymers or copolymers.

Claim 7. (Original) The scaffold of claim 6, wherein the glass fibers comprise bioactive glass fibers.

Claim 8. (Previously Presented) A sintered glass scaffold comprising glass fibers sintered together to form the scaffold,

wherein the fibers have a coating of one or more biocompatible polymers or copolymers, and

wherein the biocompatible polymer is selected from the group consisting of polyglycolide, polylactide, poly-β-hydroxybutyric acid, polydioxanone, polyvinylalcohol, polyesteramine, their copolymers and polymer blends thereof.

Claim 9. (Original) The scaffold of claim 6, wherein the coating has a thickness of about 1 μm to about 200 μm.

Claim 10. (Original) The scaffold of claim 6, wherein the coating has a thickness of from about 5 μm to about 30 μm.

Claim 11. (Previously Presented) The scaffold of claim 6, wherein the glass fibers coated with a polymer or copolymer are sintered at a temperature of between about 50 °C to about 300 °C.

Claim 12. (Previously Presented) The scaffold of claim 6 wherein the glass fibers coated with a polymer or copolymer are sintered at a temperature of between about 100 °C to about 200 °C.

Claim 13. (Previously Presented) A sintered scaffold material comprising fibers, wherein the glass fibers comprise bioactive glass having a composition of about 53 to about 60 wt-% SiO_2, about 0 to about 34 wt-% Na_2O, about 1 to about 20 wt-% K_2O, about 0 to about 5 wt-% MgO, about 5 to about 25 wt-% CaO, about 0 to about 4 wt-% B_2O_3, about 0.5 to about 6 wt-% P_2O_5, wherein Na_2O in combination with K_2O is present in an amount between about 16 to about 35 wt-%; K_2O in combination with MgO is present in an amount between about 5 to about 20 wt-% and MgO in combination with CaO is present in an amount between about 10 to about 25 wt-%.

Claim 14. (Previously Presented) A sintered glass scaffold comprising glass fibers, wherein the glass fibers comprise bioactive glass having a composition of about 53 wt-% SiO_2, about 6 wt-% Na_2O, about 12 wt-% K_2O, about 5 wt-% MgO, about 20 wt-% CaO, about 0 wt-% B_2O_3 and about 4 wt-% P_2O_5.

Claim 15. (Original) The scaffold of claim 1 or 6, wherein the fibers prior to sintering have a length from about 2 mm to about 30 mm.

Claim 16. (Original) The scaffold of claim 1 or 6, wherein the fibers prior to sintering have a length from about 5 mm to about 15 mm.

Claim 17. (Original) The scaffold of claim 1 or 6, wherein the glass fibers are sintered for about 1 minute to about 120 minutes.

Claim 18. (Original) The scaffold of claim 1 or 6, wherein the glass fibers are sintered for about 5 to about 30 minutes.

Claim 19. (Original) The scaffold of claim 1 or 6, wherein the fibers prior to sintering have a diameter of about 0.010 - 1.0 mm.

Claim 20. (Original) The scaffold of claim 1 or 6, wherein the fibers prior to sintering have a diameter of about 0.030 - 0.300 mm.

Claim 21. (Previously Presented) The scaffold of claim 6, wherein the scaffold has a porosity of between about 5 volume % and about 95 volume %.

Claim 22. (Previously Presented) The scaffold of claim 6, wherein the scaffold has a porosity of between about 50 volume % and about 90 volume %.

Claim 23. (Original) The scaffold of claim 1, wherein the scaffold is a carrier for bioactive agents.

Claim 24. (Original) The scaffold of claim 6, wherein the scaffold is a carrier for bioactive agents.

Claim 25. (Previously Presented) A sintered scaffold material comprising bioactive glass fibers or ceramic fibers,

wherein the scaffold material has a porosity of between about 50 volume % and about 90 volume %,

wherein the scaffold material has a pore size sufficient to allow ingrowth of tissue,

wherein the scaffold is a carrier for at least one bioactive agent, and

wherein the bioactive agent is selected from the group consisting of anti-inflammatory agents, antibacterial agents, antiparasitic agents, antifungal agents, antiviral agents, anti-neoplastic agents, analgesic agents, anaesthetics, vaccines, central nervous system agents, growth factors, hormones, antihistamines, osteoinductive agents, cardiovascular agents, anti-ulcer agents, bronchodilators, vasodilators, birth control agents, fertility enhancing agents and polypeptides.

Claim 26. (Previously Presented) A sintered glass scaffold comprising glass fibers, wherein the glass fibers have a coating of one or more biocompatible polymers or copolymers, wherein the scaffold is a carrier for at least one bioactive agent, and wherein the bioactive agent is selected from the group consisting of anti-inflammatory agents, antibacterial agents, antiparasitic agents, antifungal agents, antiviral agents, anti-neoplastic agents, analgesic agents, anaesthetics, vaccines, central nervous system agents, growth factors, hormones, antihistamines, osteoinductive agents, cardiovascular agents, anti-ulcer agents, bronchodilators, vasodilators, birth control agents, fertility enhancing agents and polypeptides.

Claim 27. (Previously Presented) A sintered scaffold material comprising bioactive glass fibers or ceramic fibers,

wherein the scaffold material has a porosity of between about 50 volume % and about 90 volume %,

wherein the scaffold material has a pore size sufficient to allow ingrowth of tissue, and

wherein the scaffold is a carrier for at least one bioactive agent, and wherein the bioactive agent is bone morphogenetic protein.

Claim 28. (Previously Presented) A sintered glass scaffold comprising glass fibers, wherein the glass fibers have a coating of one or more biocompatible polymers or copolymers, wherein the scaffold is a carrier for at least one bioactive agent, and wherein the bioactive agent is bone morphogenetic protein.

Claim 29. (Original) The scaffold of claim 1 or 6, wherein the compressive strength of the scaffold is from about 5 to about 25 MPa.

Claim 30. (Original) The scaffold of claim 1 or 6 wherein the compressive strength of the scaffold is over 20 MPa.

Claim 31. (Currently Amended) A sintered scaffold material comprising bioactive glass fibers sintered together to form the scaffold material,

wherein the scaffold material has a porosity of between about 50 volume % and about 90 volume %,

wherein the scaffold material has a pore size sufficient to allow ingrowth of tissue, and ~~The scaffold of claim 1,~~

wherein the scaffold is attached to a biocompatible polymeric film.

Claim 32. (Original) The scaffold of claim 6, wherein the scaffold is attached to a biocompatible polymeric film.

Claim 33. (Previously Presented) A sintered scaffold material comprising bioactive glass fibers sintered together to form the scaffold material,

wherein the scaffold material has a porosity of between about 50 volume % and about 90 volume %,

wherein the scaffold is attached to a biocompatible polymeric film, and

wherein the biocompatible polymeric film comprises a polymer or polymers selected from the group consisting of polyglycolide, polylactide, poly-β-hydroxybutyric acid, polydioxanone, polyvinylalcohol, polyesteramine, their copolymers and polymer blends thereof.

Claim 34. (Previously Presented) The scaffold of claim 1 or 6, wherein the scaffold is capable of promoting bone regeneration.

Claim 35. (Original) The scaffold of claim 1 or 6, wherein the fibers are sintered together under compressive load.

Claim 36. (Original) The scaffold of claim 1 or 6, wherein the fibers are sintered together in a mold form.

Claim 37. (Previously Presented) A sintered scaffold material comprising bioactive glass fibers sintered together to form the scaffold material,

wherein the scaffold material has a porosity of between about 50 volume % and about 90 volume %, and

wherein the fibers form a mat which is attached to a membrane.

Claims 38-49. (Cancelled)

Claim 50. (Previously Presented) A sintered glass scaffold comprising bioactive glass fibers sintered together to form the scaffold,

wherein the fibers have a coating of one or more biocompatible polymers or copolymers, and

wherein the biocompatible polymer is selected from the group consisting of polyglycolide, polylactide, poly-β-hydroxybutyric acid, polydioxanone, polyvinylalcohol, polyesteramine, their copolymers and polymer blends thereof.

Claim 51. (Previously Presented) A sintered glass scaffold comprising glass fibers sintered together to form the scaffold,

wherein the fibers have a coating of one or more biocompatible polymers or copolymers,

wherein the scaffold is attached to a biocompatible polymeric film, and

wherein the biocompatible polymeric film comprises a polymer or polymers selected from the group consisting of polyglycolide, polylactide, poly-β-hydroxybutyric acid, polydioxanone, polyvinylalcohol, polyesteramine, their copolymers and polymer blends thereof.

Claim 52. (Previously Presented) A sintered glass scaffold comprising glass fibers sintered together to form the scaffold,

wherein the fibers have a coating of one or more biocompatible polymers or copolymers, and

wherein the fibers form a mat which is attached to a membrane.

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